



The Impact of Reference Linking on the Creation and Use of References/Citations

CENDI/FLICC Workshop
Library of Congress
June 21, 2000
Deb Bendig, OCLC
dbendig@oclc.org





Outline

Data considerations

Presentation of links

Appropriate copy issue

Centralized vs.. local linking

Other considerations - one slide only!

New partnerships

Summary





What is a citation?

- **A reference in an article**
- **An item in a bibliography**
- **A record in a citation or A&I database**





Interesting citation data

- **Author**
- **Title**
- **Journal/ISSN**
- **Year**
- **Volume**
- **Issue**
- **1st page number**
- **Unique ID**





Recommendation

- **When providing article data:**
 - Identify each citation
 - Put citation data elements into distinct fields
 - Include any unique article ID you have, even if not to be displayed
 - Use standards where possible
 - Include any unique article ID in the citation!
 - Include a unique article ID for the article!





Digression

The best article identifier is

- **associated with the article from the beginning of the publication process,**
- **displayed with the article, and**
- **carried in all references to the article.**

Make unique article ids ubiquitous!





Where will the links appear?

- **HTML articles**
- **Within PDF articles?**
- **HTML versions of PDF articles**
- **PS/TeX/etc. articles?**





Presentation of links

- **Should links be printable?**

- Anything displayed in a browser prints
- If link is durable, consider displaying
- And, links may be different for different people, depending on rights

- **Should links be branded?**

- May be required by full-text source
- Good for unambiguous id of source





Where do the links come from?

Publisher adds them

- **Manual process \$\$\$\$**
- **Automated process to id citations, extract data, batch match against...existing full-text systems?**
- **Link maintenance?**
- **Record updated when new sources available?**
- **Assumes all users of data have access via specified link(s)**





Where do the links come from?

“System” adds them

- **Automated process, based on :**
 - Available citation data
 - Available matching articles
 - User rights information
- **On-the-fly or continuously updated**





Automated article linking

- **Granularity**
- **Will the real article title stand up?**
- **Special characters**
- **Versions/editions/manifestations**
 - Reissued article
 - Modified article
 - Different ISSN for electronic version of journal
- **Remedy: TOCs?**





For now, assume a perfect match...





Appropriate copy issue

- **Same articles available from multiple sources**
- **Library or user has paid for access from one or more source**
- **How does a system know the best full-text links to display to a user?**





Library defines their best link

- **E-holdings consist of**
 - Multiple sources
 - Possibly some overlap
 - Possibly different source for different time periods
 - Possibly multiple formats, with preferred order
- **Can change frequently**
- **Therefore, library holdings profile**





Sources

- **Multiple sources of articles**
 - CrossRef, NIH/NCBI initiatives
 - Direct from publisher
 - Aggregator services
- **Overlapping coverage among sources**
- **Multiple formats: ASCII, HTML, PDF**
- **Varying linking mechanisms**
- **Agreements may control availability via system**





Journal Sources Profile

For each available source, track:

- **Journal Title**
- **ISSN**
- **Coverage**
- **Format(s)?**
- **Linking mechanism/requirements (query, DOI, unique ID)**
- **Authentication requirements?**

And/or, have a database of all available articles, with links





Given a link, what does the

- **An article (or TOC)**

- “No dead links!”
- Requires knowledge of article’s existence, e.g, database of articles

- **The possibility of an article**

- Service uses profile of source holdings and assumes all articles are available





Centralized vs. local linking

- **Centralized:**

- System provided for libraries
- Each system must know library profile
- Links or associated services limited to system agreements/capabilities

- **Local (e.g., ExLibris SFX, consortia):**

- Centralized holdings profile?
- Possibility of bigger pool of sources, services





Other linking considerations

- **Centralized library holdings profiling**
- **Authentication (especially remote user)**
- **Guaranteed archival access**
- **Per-article purchase**
- **Linking standards**
- **Source of article-use statistics for library**





New partnerships

Libraries ask online services for:

- Full-text coverage matching their access rights
- Currency: how quickly new full text integrated?
- Quality of linking
 - %-age dead links
 - %-age incorrectly linked articles
- Persistent URLs
- Centralized holdings profile
- One-stop shopping, with title-level control





New partnerships

Online services ask publishers for:

- Timely availability of online full text
- Data to support accurate online linking
 - Standard metadata
 - Unique article identifiers added in publishing process
 - Persistent URLs for full text
- Remote authentication solutions
- Cost-effective access to full text





New partnerships

Publishers ask for:

- Accurate rights management
- Access to more subscribers
- Continuation of revenue stream
- Tools to support data production
- Remote authentication solutions





Summary

- **Quality of linking becomes a significant system discriminator**
- **There will be no one source for all full text**
- **Standards will provide the best environment for reference linking**
- **Opportunities for new centralized services**





Questions?

